THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY R. P. ROBERTS.

No. 8. **BALTIMORE, MD. JUNE 21, 1836.** **Vol. III**

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American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 21, 1836.

The article under the head of "British Agriculture, &c." we particularly commend to our readers. Its statistical as well as historical facts, connected with husbandry, are really of passing interest.

THE CROPS, &c.

The Herald of the Times published at Elizabeth city, North Carolina, has this paragraph:—

The Rain and the Crops—For three weeks, scarcely a day has passed without more or less rain. A gentleman who has had an opportunity of observing during a ride of twenty miles in this county, informed us this morning, that the crops of indian corn and wheat are literally ruined. That if the balance of the season should be as favorable as could be wished, there will not be a half crop raised—One farmer states that there was water enough in his field, if it had been dammed up and made to operate upon a mill to grind a hundred barrels of corn. The wind has generally prevailed from the eastward and the tide has been unusually high.

A letter to the editor of the Farmer and Gardener from a gentleman of Albany, states that the corn in that quarter is very backward. That that which was planted from the 12th to the 25th May was pretty nearly all destroyed; part by the drought, and part by the long cold rain. Those who planted at the close or just after the storm were successful, it being now up and doing well. He further states that some complaints have been made of the grub and wire worm, as well as that the corn did not come up, some attributing it to the quality of the seed; but those who planted from the same seed later make no complaints, for theirs came up finely. Barley, oats and grass look well and bid fair for a great crop.

The editor of the U. S. Gazette says:

While we have to regret the great injury sustained in the grain fields in this part of the state, it is gratifying to learn that in the west there is a brighter prospect. The editor of the Pittsburgh Advocate, who has made a tour of his neighbourhood, says—"The late showers, although rather too frequent and too cold to do the corn crops much good, have revived the fields of small grain to an astonishing degree—We do not recollect to have ever seen the grain further advanced, thus early in the season, than it now is in Washington county. The farmers anticipate excellent average crops, and *we*, good prices, for the product of their labor."

The Lynchburg Virginian states that the papers in various parts of the country, speak of the injury which the growing wheat crop has sustained from the fly.

The Lexington Gazette says:

"The wheat in some parts of our county is very unpromising. The fly is mowing it down."

The editors of the *Chronicle* give the following as the result of their own observation in the upper part of Maryland, and we will barely remark that it corresponds to the letter with our own private advices from the same portion of our state:

The Crops—We observe that some of our cotemporaries are disposed to give but little credit to the universal and wide spread complaint of the failure of the Wheat crops. We can assure them, that so far as the upper part of Maryland is concerned, the cry has not been raised without ample reason. The hessian fly has, in many places, not only injured, but totally destroyed the wheat in fields, which we have heretofore been accustomed to regard as unfailing in their product. We have ourselves, within the last 10 days, seen the plough engaged in turning under the sod where, two months ago, the farmer hoped, that a few weeks hence, he would employ the sickle. Many seeds sown last fall in wheat have been planted in corn and buckwheat, and these latter, we are pleased to learn, present a fair prospect of yielding a generous harvest.

The *Baltimore Patriot* believes the present wheat crop will be the shortest for twenty years; but inclines to the belief that the destruction will not be so universal as have been anticipated, and gives the subjoined paragraph from the Cincinnati Gazette, as an offset to those on the gloomy side of the prospect, and the sagacious editor thinks it may probably be a little on the other extreme.

[From the Cincinnati Gazette, June 11.]

Crops.—The newspapers are pouring in upon us doleful accounts of the wheat crops. This is a regular story of every season—a town story told by those who know so little upon the subject, as to assert, that the deep snows of winter have destroyed the wheat!! Whatever the drought of the two last weeks of April, and the two first weeks of May, may have done of injury to wheat, the wet weather of the latter half of May has restored. The trade begin early, but Providence pays no regard to their speculations. When was there a great and general failure of the agricultural products of any country? The whole season of 1836, thus far, has been favorable to the husbandman. Croakers there must be, as well as speculators. But neither can regulate the rains, or the dews of heaven. It is said, that nowadays, landmongers, of all characters, pay for editorial puffs, as for advertisements. The editors who drive this trade, may as well trade in desperate crops. Any thing for a '*con-si-de-ra-ti-on.*'

We heard it stated the other day by a gentleman of undoubted veracity, that a gentleman of Talbot county on the Eastern Shore of Maryland, whom he named, had written him word, that out of *fifteen* large fields which he had in *wheat*, but *one* of the them, from present appearances, would be worth cutting.

The statements which are made in the various paragraphs comprised in the annexed article, present a melancholy picture, and we are constrained to believe a true one, of the condition of the growing crops in the middle states. In regard to Maryland, and the adjacent parts of Pennsylvania and Virginia, the representation of the ravages committed by the Hessian fly is but too well verified by reiterated private and printed accounts.—*Balt. American.*

From the Philadelphia National Gazette.

The following is extracted from the Commercial List and Philadelphia Price Current of Saturday the 11th inst. Later advices than could have been possessed by the editor of the Price Current, at the date his remarks were composed, mention further advances in wheat, &c. in the English Corn Markets.

The coming Crops.—From various parts of the country it is now ascertained, that the Wheat crop has sustained considerable injury, and in some places it has been nearly destroyed by the Fly. From our various correspondents we learn that the prospect is also quite unfavorable for an average crop of Rye and Corn. In some sections the grub worm has been very destructive.

Late advices from Liverpool state that the spring has so far been cold and backward, and that prices of grain are creeping up a little. There is also a decided diminution in the quantity of Wheat sown, Oats and Barley having paid the farmer much better during the last two years. English Wheat is quoted 7 to 8s.: Irish 6s. 1d.; American 7s. a 7s. 6d.; Dantzic 7s. 2d. a 7s. 9d. per 70lbs.

From Dauphin and Luzerne counties are the annexed accounts:

Dauphin County.—From all parts we learn that the wheat crop is going to be lighter than it has been in the remembrance of our oldest citizens. In many parts of this county our farmers will not reap as much as they sowed. This is also the case in the counties adjoining. The wheat crop is gone—nothing can save it, and those who are so fortunate as to have any to dispose of may expect a higher price for it than it has commanded for twenty years past, unless our wants are supplied from some distant source.—*Penn. Tel.*

Luzerne County.—Kingston, June 8: We understand the Wheat crops in this section of country, generally, are not promising. The severity of the winter, it is said had an unfavourable effect upon wheat, and the insect is now at work in many fields.

A letter from Reading dated 7th June, says: "It has now rained with us 15 days, but as to its benefitting, the crops, particularly the wheat, it is all idle. I am now confident there will not be a quarter crop in Berks county."

A second letter says: "The wheat crop is daily becoming worse and worse, the ravages of the fly are very great."

A third letter of the third of June, written by a person a few miles out from Reading, in Berks county, states, that in that neighborhood some farmers are ploughing up their wheat fields—some pasturing them, others manuring them, and many purchasing wheat for seed for the ensuing crop.

From Bucks, Montgomery, Lehigh, Northampton, Lancaster, Lebanon, York, Cumberland, and other adjoining counties of Pennsylvania,—throughout Maryland, not only in the fertile western counties, but all lower Maryland, both shores of the bay—throughout the rich wheat raising districts of western Virginia, and in lower Virginia south of the James river, the same calamity is to be deplored. What the prospect is in lower Virginia, between the James river and Potomac, we are uninformed.

Those acquainted with the history of the Hessian Fly need not be informed, that the destruction caused by that insect, which is ascertained to be general, even in those fields which to-day promise some yield, has not yet fully developed itself. Time has not permitted its operations to their extent.

Why should this dispensation be concealed or glossed over? Why should expectations of better results to the harvests be made than the existing reality and the known operations of the Hessian Fly permit? We fear that the language of the Dauphin county Pennsylvania Telegraph is too true: "The wheat crop is gone, nothing can save it." The injuries it has already sustained would seem to be irretrievable.

The last crop of Indian corn did not, in great part, attain to sufficient maturity to keep—it is daily perishing. The recently planted (and now planting, upon the ploughed up wheat fields,) crop of Indian Corn exhibit, from all accounts, a very unpromising aspect; and there will in all probability, be a failure of it, unless the future weather of summer be propitious and protracted—propitious beyond all experience of our seasons.

That immediate importations of Grain to any extent from Europe are not to be expected, is obvious. Prices in this country were declining in April and May. No apprehensions were, until towards the close of May, entertained for the growing harvests. Would any merchant in the United States or in Europe undertake shipments of grain to the United States in the face of declining prices, and of a growing crop coming to maturity in July—respecting which no apprehensions were expressed, none made public?

Should the alarm now commencing, excite shipments to arrive even late in the autumn, it will be well—it is the best that can be anticipated,—for the latest accounts from England forbid the anticipation of any foreign grain being likely to come to this country, until prices here may have approximation to *famine prices*.

The introduction to the paragraph in this paper of yesterday, purporting to be taken from the Pittsburg Advocate would have been more correct, had it read that in the entire northern, northwestern, and eastern section of the State of Pennsylvania, the injury sustained from the Hessian Fly, the extent of which is not yet fully developed, has been of the most calamitous character.

The first notice of the appearance of the Hessian Fly in the Valley of the Mississippi that has appeared, is that published also by us yesterday from Tennessee of the extensive destruction to the wheat crops of that State. It is to be borne in mind that the destruction caused by this insect first is manifested to the South, where the crops mature earliest, and progress northwardly as the maturing of the crops usually progress. The insect may not exist where it is not already known to be, but it is probable that it does exist where as yet it is not acknowledged. So wide spread a dispensation of this nature, as the present is ascertained to be, is not within the memory of man. The Pittsburg Advocate may have occasion to alter its representation. From Muncey, Lycoming county, the following appears in the Commercial Herald of this morning. Muncey is among the most fertile parts of the county.

The fly has destroyed the wheat crop in this section of the country. Fields which looked very well a few weeks ago, will not be worth the cutting. The rye fields bid fair for an average crop. The corn looks very bad. Owing to the drought about the time of planting, it did not come up, and the continued rain for 18 days which succeeded, caused the re-planting, in many instances to rot in the ground.—*Muncey Tel., June* 11.

The Richmond Enquirer of the 10th inst. as quoted in the New York Journal of Commerce of Monday, together with several notices of the Virginia and Maryland wheat crops more or less favorable as to their production, remarks, "in several parts of Pennsylvania and Delaware the crop is unpromising."

This same general observation amounts to absolute misrepresentation, by the idea it conveys to every reader's mind—to convey the truth the observation ought to be, that throughout the greater part of Pennsylvania, every part yet accurately heard from, and throughout the State of Delaware, including the best cultivated and most productive wheat raising districts in both states, the prospects of the growing crop is of a deficiency thereof of an alarming character.

If our readers will refer to their maps they will better realize the extent of the reality, than can otherwise be brought to their minds. Pennsylvania, Delaware, Maryland, and Virginia, all deficient to an alarming extent.

HIGH WATER AND DESTRUCTION OF CROPS.

On Sunday night last, previous rains having completely saturated the earth with water, a violent storm of thunder and rain come on which lasted for several hours. Next morning, the river commenced, and continued to rise until sundown, when it had attained a very unusual height—wanting only a few inches to make it as high as it was during the great flood of 1834, when it was as high as ever known.

The crop of wheat on the low grounds is almost totally destroyed. The crops of corn, oats and tobacco, are very much injured. But the season is not so far advanced as to prevent the replanting of tobacco.

The smaller streams in the neighborhood were also much swollen, having swept off numerous mill-dams and bridges, and done much damage to crops in the low grounds.

Danville, (Va.) Rep.

THE LATE RAINS.

We have been informed that the different streams, in our vicinity, have not been so high, for the last thirty years, as they have been within the last four or five days. We had occasional rains for eight or ten days previous to last Sunday, which had so saturated the earth, that the immense torrents of rain that fell on that night and Monday morning, ran off immediately and swelled the Creeks to such an extent, that the water soon overflowed their banks, covered the low grounds in their vicinity, and swept almost every thing before it, fences, mill-dams, mills, &c.—and although no bridges that we can hear of, have been carried off, yet we understand that some have been seriously injured. We are informed that it will cost at least $30,000 to repair the damages that have been sustained on the Catawba alone. It is said that it will take $3000 to repair the fences, &c. on the estate of the late Gen. Breckenridge, and the Catawba Iron Works Co. have been heavy sufferers, having had a mill, mill-dam, furnace dam, &c. swept away and the stack of their furnace so seriously injured that the furnace "blew out," and what is still more lamentable, a hired negro man lost his life in attempting to save some property deposited in the mill; he was struck by some of the timbers and sunk to rise alive no more. We have no correct information of the amount of damage sustained on Craig's creek, but presume it must be heavy, as it raised sixteen feet above low water mark.

Fincastle (Va.) Democrat.

VIRGINIA SILK COMPANY.

We have received a copy of an act of the General Assembly of Virginia, passed the 21st of March, 1836, incorporating William Brown, The-

mas B. Barton and Conrad H. Hunt, and their associates, under the name of the "Virginia Silk Company," with a capital of $10,000 "for the purpose of rearing, reeling and manufacturing, silk." We think the charter a very liberal one and creditable to the intelligence of the Old Dominion. The company are authorised to hold 2000 acres of land in each of the counties in the state, and the charter is to be in force thirty years from its passage. Our correspondent remarks: "A great deal of preparation is making in this section [Fredericksburg] of Virginia for the silk culture. I have no doubt in a few years we will in fact be a silk growing people. Lands are here low in price, and soil and climate admirably adapted to the culture of the tree and the rearing of the worm."—*Silk Culturist.*

GREAT CORN CROP.

We published in No. 43 of volume 2, a very brief account of the yield of three fields of corn raised last year in the state of Delaware by Major *Philip Reybold;* but as the following communication gives a highly interesting detail of the plan pursued by him, as well as the result of three separate experiments, we know we shall consult the taste of our readers by transferring it to our columns:

[From the Cultivator.]

REMARKABLE LARGE CORN CROP.

Mr. JESSE BUEL—It affords me pleasure to be enabled to resort to your very useful agricultural as a medium through which I can bear testimony to the value and importance of the soil of our little State of *Delaware.*

Little has been heretofore known, beyond its own limits, of the superior quality of the soil of the peninsula of Delaware and Maryland, and of its advantageous location; but the present age of improvement has, fortunately, brought within a part of our territory the public improvements of a canal, and two rail roads, which have developed to the world the importance of our location, the beauty of our country, and the susceptibility of our soil, to the greatest extent of production and improvement. These improvements appear also to have infused new life into our citizens, and caused a spirit of enterprise and industry which has been most beneficial to the agricultural interests of our country.

As a specimen of the capability of the soil, and the ability of the farmers in the neighborhood of St. George's, New Castle county, Delaware, permit me to present you with the following statement of a crop of corn, raised last year, by *Maj. Philip Reybold*, one of our most enterprising farmers—one to whom our community are largely indebted for the impetus given to our agricultural improvements—viz:

On one field of 22 acres, he raised 2,216 bushels, about 100½ bushels per acre.

On another field, 30 acres, he raised 2,240½ bushels, about 75 bushels per acre.

On do. 27 acres he raised 1,819 bushels, about 67 bushels per acre.

79 acres—total crop 6,284½ bushels—averaging for the whole crop of 86 acres, near 80 bushels to the acre—and all this upon a soil that was not naturally as good as a greater part of the soil of this country; and brought up within the last ten years, from an extreme state of poverty.

I have obtained from Maj. Reybold, a statement of the mode adopted by him for the improvement of his land, as well as the cultivation of the crop of corn here referred to, which is as follows: On the field of 22 acres, about 7 years ago, he put 60 bushels of stone lime to the acre and planted it in corn, in the following spring he put it in oats, and in the fall put on about 40 loads of barn yard manure to the acre, and sowed it in wheat and timothy seed, and in the ensuing spring with clover. It remained in grass until last spring, receiving an intermediate top dressing in 1833, of 40 loads of barn yard manure per acre. He mowed it for 3 or 4 successive years, and each year obtained from 2½ to 3 tons of hay per acre. Last spring he gave it another top dressing of 40 loads per acre of long manure, which was permitted to remain as long as possible in order to give the grass a chance of starting through it. He then ploughd it up about ten inches deep, with a No. 5 concave plough, which completely covered the manure; he then gave it a stroke with the harrow along the course of the plough furrows, and then crossways, and struck it out very shoal, 3½ feet from the centre to centre each way. After the corn came up, he harrowed it both ways with the fallow harrow, and from that, until the first of July, he gave it three dressings with the cultivator (fluke harrow) first crossing the plough tracks; in ten or twelve days the other way, being very careful not to disturb the manure by going too deep with the cultivator. The plough was never used in the field after planting, and the corn thinned so as to leave 3 good stocks in the hill. When the corn became fit to top and blade he cut it off by the ground and put it up in shocks.

The field of 30 acres—one half he covered with oyster shell lime, 100 bushels to the acre, and 5 acres with marl, 12 loads to the acre; and previous to planting in corn, the whole field was covered with 40 loads of long manure per acre. The produce of the ground on which the lime and marl were put, was about equal, and exceeded that of the ground which had not the benefit of the lime and marl, about 12 to 15 bushels per acre as near as he could judge. The field was planted and tilled in the same way as the one described. In order to test the advantage of the cultivator over the plough, for tilling corn, he had 5 furrows in this field that he lapped the furrow to, with a plough, previous to going over it the last time with the cultivator. He soon discovered that the growth of those five rows fell short, in height, of those adjacent, and yielded one-fifth less corn.

There is no doubt but this mode of tilling corn, especially where the sod ground is used, is, to plough deep, and to use nothing but the fallow and fluke harrow for its cultivation. By not disturbing the sod ploughed down, it remains there as a reservoir of moisture, and an exhilarating principle throughout the season, to the growth of the corn

The third field of 27 acres was covered with about 30 loads of manure to the acre, in the spring of 1834, and 6 or 7 years ago, 60 bushels of stone lime, per acre, was put upon it. The planting and mode of cultivation was the same. I might here remark, that all the second, and a part of the third field, were in corn, the year before last.

JAMES N. SUTTON.

St. Georges, Delaware, March 5, 1836.

NOTE.—The management which led to the extraordinary product of corn, should be deeply impressed upon the mind of every corn grower. 1, The ground was *well* dunged with long manure; 2, it was planted on a *grass ley*, with one *deep* ploughing; 3, it was pulverized with the harrow; 4, the plough was not used in the after culture, nor the corn hilled, but the cultivator only used; 5, the sod was not disturbed, nor the manure turned to the surface; and 6, the corn was *cut at the ground*, when it was fit to top. These are the points which we have repeatedly urged in treating of the culture of this crop; and their correctness is put beyond question by this notable result. The value of lime and marl are well illustrated in the second experiment.—CONDUCTOR OF THE CULTIVATOR.]

THE SILESIAN, OR SUGAR BEET.

We published a few weeks since a correspondence upon this subject, and take great pleasure in giving place to the present one. The culture of the *Silesian or Sugar Beet* is awakening great interest in many parts of our country, and, therefore every thing relating to it cannot fail to be well received. The enhanced value which the introduction of its culture has given to landed property in France, will not a little commend it to the attention of our sagacious and calculating countrymen.

THE SILESIAN OR SUGAR BEET.

We lay before our readers this morning some interesting information in relation to the cultivation of the sugar beet in France. The sugar in the possession of Mr. Sutherland, is of a very superior quality. He has already distributed some of the seed among the members of Congress from the respective states. In a few days a larger quantity will be forwarded to this place for distribution.—*Globe.*

Philadelphia, June 2, 1836.

Dear sir: I have the pleasure to send you a small quantity of refined sugar, received from France by our respected fellow-citizen, Mr. Vaughan, prepared from the beet, and sold at 9 cents per pound. The same quality sugar is now selling here from 18 to 20 cents. I also send you a package of the seed, being of the parcel sent out by the agent sent to Europe; and enclosed you will find directions as to the culture.

I am, very respectfully, &c.

FREDERICK BROWN.

Hon. *J. B. Sutherland*, M. H. R.

BEET SUGAR.

The following is an extract from a letter from a gentleman now residing in Paris, and who resided many years in Philadelphia, to Jas. Ronaldson, esq. who takes great interest in introducing this branch of husbandry and manufacture into the United States:

PARIS, April 7, 1836.

Since my last, accompanying your beet seed, (which I hope you have received in good order,) Mr. Pedder has done much towards accomplishing the object of his mission. First, he shipped near 600 pounds of beet seed, with which there might be sown many acres of Jersey and other lands. Then we sought men and books for information, and could find only high talk and declamation. Next, I mustered all the recommendations I could collect, and agreeably to Mr. Pedder's own plan, he was despatched to Arras, whence he strolled to Douay and Valenciennes, and returned to Arras, where, from the information I received from the gentleman I recommended him to, and from himself, I find he is hard at work, and means to continue this month, and then return to the United States, fully, I am confident, adequately qualified to perform all the operations of beet sugar making, from the crushing of the roots, nay, the growing of it from the seed, to the crystalization of the matter.

My friend, this may not be the last service you and your associates will do to society. I hope it is not, and that you have many more in reserve. But when I consider its importance, the influence it must have in American society, for mind ye, in America, sugar is like salt, no one can do without it; I think it is the most important service you could render society at the present time.

I think you have made an excellent choice in the man you sent. His intelligence, activity, and assiduity are admirable; you have good reason to expect success. Mr. Pedder writes to me on the 1st from Arras:

"And in the first place to thank you for your kind letters to your friends which have introduced me to all that is necessary in this interesting country, a land flowing with milk and honey in the shape of Beet Sugar. I believe that two persons cannot meet without the first topic being *Betterave* (beet root.) Indeed I am not sure that the parson did not preach about it last Sunday; nothing else is thought or spoken of, and no wonder, for from 100 pounds of beet root they make 6 pounds of sugar, besides 8 pounds of molasses, with which to make sugar of the second quality, and 15 pounds of cake, sufficient to keep three sheep a day.

"Three years ago there were 18 manufactories at Valenciennes; there are now 64. Land which was then 500 francs an arpent now brings 1200; the price of labor is much risen, and the people are getting fat on the mutton and beef, made upon the cake or *caput mortuum* of the root: what will this not do for America?"

Thus much, my friend, for the Beet Sugar, the introduction of which cannot fail to produce a mighty ameliorating revolution in the United States. Give information to Mr. Vaughan, to whom please to remember me kindly. Mr. Vaughan must be a young gentleman of my age. I recollect dining with him in December, 1785, at Dr. Franklin's. I am anxious to know whether you have received your invoice of beet seed, and whether Mr. H. has his.

Extract of a letter from a gentleman in Paris.

CULTIVATION OF THE SUGAR BEET.

(SILESIAN BEET.)

This plant requires light ground, that has some depth. Those who cultivate it regularly, give it one ploughing before winter, and another in February or in the course of March: it is then harrowed in order to make it smooth as possible. It should not be sown till the frost is no longer to be feared—it may be sown, according to circumstances, from the end of March to the end of May. It is sown either by scattering like wheat, or in furrows, regularly distanced, say nine inches apart. The first mode (like wheat) is much quicker—the second more profitable, it saves one good half of the seed which is used for the first mode. The seed thus sowed, and covered by something like an inch of ground, soon makes its appearance. When the young sprouts are four or five inches from the ground, it is proper to *thin* them, that is to say, to pick out the excess of the plant which may injure the growth of those which you wish to remain, and care must be had to suppress such plants as are less healthy and vigorous, and preserve those that are more so.

When the plant has been thus *thinned*, or while you are thinning it, it should be weeded with a weeding hook or a hoe; this is done here to advantage, by a *weeder* drawn by a horse. This weeding operation must be repeated two or three times while the plant remains in the ground to prevent wild plants from injuring the growth of the beet and choaking it.

When the seeds have been thrown on the ground in the common way, like wheat, it often happens that several parts have received no seed; in this case, the best of the plants that have been taken from those places which had too many, are to be picked and placed in the places where they are wanted; but to have them succeed care should be taken that the root should stand upright in the hole made to receive it. If the weather continue long dry, it would be well to water it. During the vegetation of the beets, care should be taken to prevent the leaves being taken off; the growth of the root would be greater than the profit that would accrue from the leaves being taken to feed the cattle, of which cows and other animals are quite greedy.

The beets ought always to be reaped before the frost or frost-time has come, to avoid the danger of losing the crop. In every part of France that operation takes place in October.

If it were a possible thing to extract the juice of a crop of beets as soon as they are out of the ground, the produce would be much greater than when they or a great part of them are kept for several months unworked. But the sugar manufacturer is always forced to keep for several months, a great part which has not been submitted to the operation. It is necessary, therefore, to place them in some safe place, where they may be found when wanted, free from rot and fermentation, that is to say, before the plant has suffered either vegetation or any internal movement.

Two conditions are indispensable for the preservation of beets: first, that they may be kept in a place sufficiently dry to prevent rotting without being hot enough to promote vegetation or fermentation—second, that they be completely sheltered from frost. Whatever part is touched by it, is lost for the fabrication of sugar.

An arpent of land, that is to say 1344 square fathoms of six feet (French) square, produces 20,000 pounds weight of the root.

The gentlemen interested in introducing into the United States the culture of the *Sugar Beet Root*, and the manufacture of Sugar therefrom, are very desirous of having transmitted to the Governor of each State and Territory, a quantity of the seed of the true sugar kind which they have received from their agent, who is at present in France. Any individuals acquainted with a direct and speedy mode of transmitting the same, will confer a favor by communicating with Mr. Jacob Snider, Jr. 32 Walnut street, President and Secretary of the Society for promoting its introduction here. We trust that editors will give the above circulation.

SPAYING MILCH COWS.

We copied some months since from the *Veterinarian* some facts illustrative of the advantages of spaying milch cows, and we insert in the present number the result of five other cases, which will be found interesting.

[From the Veterinarian.]

NEW FACTS IN PROOF OF THE ADVANTAGE OF SPAYING MILCH COWS.

By M. Regere, M. V., Bordeaux.

Several instances have been related in your journal of the good effect of spaying milch cows. I would beg leave to add some cases which have come under my own observation. The cows were taken from the best dairies, but for obvious reasons, I selected those that had met with some accident at the time of calving.

Case I.

A large cow, fifteen years old, had calved on the 24th of January, 1834, and had, a few days after parturition, given from three to four gallons of milk per day. On the 22d of April following, she yielded only two or two and a half gallons. I then operated upon her. The pain of the operation, and the restricted diet to which she was afterwards subjected, greatly diminished the produce to half that quantity.

As soon as the consequent inflammation had disappeared, and the cow returned to her usual food, the flow of milk rapidily increased, and in fifteen days after the operation, the wound having healed, she yielded daily from two to two and a half gallons, and that quantity has not since diminished. She has also taken on a disposition to fatten, and is in better condition than she was before. She has once since shown a desire for the bull, but was not sent to him.

Case II.

A small cow, six years old, calved on the 26th of March, 1834, and at that time yielded two gallons and a half of milk per day. On 30th April she gave two gallons, and she was then spayed. She suffered little from the operation; her milk did not diminish, and she yields the same quantity at the present day. She has not shown any longing for the bull.

Case III.

A little cow calved on the 12th of April 1834. Some days afterwards she yielded 2 gallons of milk per day, and she was operated upon on the 13th of May. She seemed, for a considerable time afterwards, to be in a poor state of health; her skin became yellow; the hair fell off in patches, and particularly about her fore-quarters. She moaned sadly from time to time, and her appetite considerably diminished. The quantity of milk remained the same.

On June 20th she seemed to be really ill, and yielded, during 7 days, little more than a gallon of milk per day. The quantity gradually lessened after that period, and continued to decrease until the end of July, when she was evidently dropsical. She was sometimes better and sometimes worse, until the 4th of September, when she died.

2 lbs. of bloody scrosity were found in the thorax. The lungs contained numerous tubercles, some hard, and some even stony, and some soft, and others filled with purulent matter.

On opening the belly it contained at least 7 gallons of a similar fluid. The fourth stomach and some of the intestines were found softened and black, and the food contained in the stomach was fetid. The liver, enlarged and yellow, was softened, and it also contained many tubercles, hard or soft.

The womb was unaffected, except the extremities of the two cornua, which were of a yellow color, and hard. Few traces of the operation of spaying remained, unless in the sublumbar region, in which a spot of blackish color was seen where each ovary had existed. A white tenacious tissue had united the incision made thro' the abdominal muscles, and caused the parieties of the abdomen to adhere strongly to the skin.

This examination after death, proved that the cow was not lost from any morbid consequence of spaying, but from ascites, produced by the lesions stated, and which had existed before the operation.

Cases IV. *and* V.

Two cows were operated upon in the month of May. One, 8 years old and giving two gallons of milk per day, and that had calved on the 10th of April, was spayed on the 8th of May. She suffered from the operation, and did not give more than two or three quarts per day; but she soon recovered, and when the wound was healed, yielded her usual quantity, and which she continues to do unto the present period.

The other, aged ten years, and that had calved on the 15th April, and gave, a month afterwards, nine quarts of milk per day, was spayed on the 15th of May. In four days after the operation she gave again her usual quantity of milk; this increased to 10 quarts, and she yields that unto the present day.

These cows showed a disposition for, and went to the bull several times after the operation; and, being incapable of conceiving, the œstrum (or heat) returns on them periodically. The first has been with the bull four times, and the other twice.

These five cows have continued to yield the same quantity of milk which they gave at the time at which they were spayed; and this, on a fair calculation of the usual gradual diminution of the secretion, is double the amount that would otherwise have been obtained in the whole period. We must not yet go farther than this, but if cows that have been spayed should continue to yield such an extra quantity of milk as long as they live, the operation will be valuable indeed.

[From the New Castle Gazette.]

GOOD CATTLE

Should not be cheap, nor cheap cattle should not be good.

Every farmer will acknowledge the truth of the first part of the above proposition, but alas for Delaware! all of her farmers do not practice upon the precept. They seem rather to act in accordance with the last part, and prosper accordingly; it has been a mistaken notion with many, who could do better than they do, that it is better to raise up a large number of poor kind of cattle for the market, and sell them at a small price, than it would be to put what these same *'lean kind'* cost, both in care and food, into a few first rate cattle, and sell them for a sum double in amount, to what they have received for the haggard regiment of hoof and horns, which some turn off yearly. These individuals are often great stock raisers and dealers, and at the same time show them, or tell them of a Bull worth two or three hundred dollars, and they will lift up their hands in horror at the extravagance, and call it all folly and nonsense, &c.—This kind of feeling not only injures those who possess it, but is also a real injury to the community, because it is a barrier to the march of improvement. We will suppose that a spirited individual, who may perhaps be not very well able to incur the expense, purchased one of the improved breed of cattle to raise the character of his own breed, and also that of his neighbors, relying on their support for indemnifying him in the enterprise. What is the result? If his neighbors are of the class which we have just described, and we will leave it to you, loving reader, if you have not some of this description, instead of giving him aid as they very easily could, ten chances to one they will ridicule the animal, and the enterprise, and throw obstacles in the way, and blame the individual for trying *'to do something great.'* This kind of management has been practised in more than one neighborhood, to our certain knowledge; and if the person has not been spirited enough to break through the trammels of prejudice, and carry out his project by his own unaided energy, he must inevitably fail of success, and suffer a loss. Now if these same people would stop and consider for a moment, or just calculate the expense of raising, we will say an ordinary pair of steers, and of raising an extra pair—note down the difference—then put them both into market, and note down the difference in price, they would soon see on which side the advantage was.

It costs no more care—no more labor—no more steps to raise the good pair. If they eat more, they will do more labor by way of offset, and they are always saleable, while the ordinary ones are oftentimes a drug. Many, who like to see and have good cattle, nevertheless, are unwilling that the improved breed should be held so high in value, and would fain bring them down to a level in price to the common and unimproved kinds of breeds. Now it is not right that they should be put on an equality; for various reasons. In the first place, they should command a higher price, because they are actually, in every respect, worth more, and secondly, every one will, as a matter of course, pay more attention, and consequently keep up the improvement longer on any thing which has cost much, than he would upon a thing that is thought to be of not much value. There will be also more exertion to keep the actual value up, and at last the spread of improvement will be effected. Had not Livingston sold his Merino Bucks at $3000 a piece, think you the attention of people would have been turned to them? If he had given them away, it is probable that we should soon have heard no more of the breed, for it is a fault of nature, that we despise what we can get the easiest. So it would be with the improved breeds of cattle, if they could be afforded, or were sold at the low prices at which ordinary cattle are—the interest, the pains, and the care which is now felt and taken in them would cease, and they would degenerate because of the neglect, and finally become extinct. For these reasons, we would repeat the assertion, that good cattle should never be cheap, and cheap cattle should never be good.

THE HOUSE WIFE PRESERVING BUTTER.

Believing that butter may be kept sweet and good, in our climate, almost any length of time, if properly manufactured, and well taken care of, in order to test the validity of this opinion, we had two pots put down, one in June, and the other in August, 1834, more than twenty months ago; and on probing them with a tryer, while penning this article the butter is found perfectly sweet, and seems to retain most of the original flavor and freshness. We design to send both pots to Boston next fall, with a view of having its mode of manufacturing, and method of preservation, judged by the butter tasters of that notable city.

In the manufacturing process, no water is permitted to come in contact with the cream or butter—because it is believed that water, and particularly soft water, dissipates much of the finer flavor that gives to butter its high value. The Orange County dairy women say, "give us good hard water and we will make good butter," for the reason probably, that it abstracts less of the aroma from the butter than soft water. The temperature of the cream may be regulated by cold or hot water put into a tub, in which the churn may be plunged. If the cream is clean it needs no washing; and if the butter is dirty, water will never clean it.

Nothing but good well pulverised salt is used in preserving the butter; this is all mixed, and all dissolved, in the mass, before the butter has its second, thorough and final working with the butter ladle, and which is not finished till all the buttermilk is expelled.

To avoid all taint from the butter vessels, and the better to exclude it from the air, which soon injures it, the butter is packed close in clean stone jars, and when nearly filled, is covered with

a strong brine, rendered pure by previous boiling, skimming and settling. In twenty months this brine has been twice renewed, on the appearance of a film upon the surface of the old pickle. To preserve butter, air and water, and heat above 65 or 70 degrees are to be guarded against as much as possible. The brine upon the surface does not penetrate the mass, nor while sweet, taint it; but it thoroughly excludes the air.—*Cultivator.*

[From the New England Farmer.]

BRITISH AGRICULTURE, &c.

An article has appeared in the Edinburgh Review for October and January, 1835-6, which contains many important details, relative to the progress of improvement in agriculture, together with information relative to the increase of manufactures, commerce, population, &c. &c., in Great Britian, since 1760. This is interesting and contains a mass of information, which must make it very valuable to our trans-Atlantic brethren; and we would with pleasure publish it entire, were we not precluded by its great length, and the want of applicability of a large part of it to the circumstances of this country. We will however give abridged statements of some of the most important facts, and copy some of its notices of agricultural improvements, which we think may be useful to American agriculturists.

Increase of Population in Great Britain.

Taking the population of England and Wales in 1755 at 6,253,707 (the mean between that of 1750 and 1760,) and adding to it the then population of Scotland, we get 7,525,180 for the population of Great Britain in 1765. But the population in 1831 was 16,539,318, showing that in the interval there had been added to it the prodigious number of 9,014,139 individuals, or that it had increased in the ratio of nearly 220 per cent! An increase of this sort is unparalleled in any other European country, and is to be matched only by the increase that has taken place in the United States.

Now, if we affirm that the improvements that have been made in the agriculture of Great Britain since 1755 have sufficed to provide an ample supply of food for this additional nine millions of inhabitants; and if we suppose, which is certainly a moderate estimate, that they consume one with another, to the value of £8 a year of raw produce, it will follow that the progress made in agriculture, since the middle of last century has added the enormous sum of £72,000,000 a year, or more than twice the total value of the cotton manufacture, and nearly three times the interest of the national debt, to the free disposable income of the country. It will not be difficult to show that such is undoubtedly the fact.

Improved quality of Food.

Great as has been the change in the quality of food made use of in England during the last thirty or forty years, it is inconsiderable compared with the change that has taken place, during the same period in Scotland. At the end of the American war, no wheat bread was to be seen in farm-houses, country villages, and minor towns of Scotland, and but little even in the largest towns. Oat cakes and barley bannocks were then universally made use of, but at present, the case is widely different. The upper, and also the middle and lower classes in towns and villages, use only wheaten bread; and even in farm-houses, it is very extensively consumed. It is stated in the first of the work mentioned at the head of this article, that a field of eight acres sown with wheat, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity, that it excited the attention of the whole neighborhood, and that numbers of persons came from a great distance to see it! Even so late as the American War, the wheat raised in the Lothians and Berwickshire did not amount to a third part of what is now grown in them; and we shall certainly be within the mark, if we affirm that the wheat culture has increased in Scotland, generally, in a *tenfold* proportion since 1780.

But the change that has taken place during the last half century, in the consumption of butchers' meat, is still more extraordinary than that which has taken place in the consumption of corn. The quantity made use of has been wonderfully increased, and its quality signally improved. From 1740 to about 1750, the population of the metropolis fluctuated very little; amounting, during the whole of that period, to about 670,000 or 675,000. Now, during the ten years ending 1750, there were an average about 74,000 head of cattle, and 570,000 head of sheep sold annually in Smithfield market. In 1836, the population had increased to 1,472,000, or in the ratio of about 218 per cent; and at an average of the three years ending with 1831, 156,000 head of cattle, and 1,238,000 head of sheep, were annually sold in Smithfield; being an increase of 212 per cent on the cattle, and of 217 per cent on the sheep, as compared with the numbers sold in 1740-50. It consequently appears that the *number* of cattle and sheep consumed in London, has increased, since 1740, about in the same proportion as the population. The weight of the animals has, however, a good deal more than doubled in the interval. In the earlier part of last century, the gross weight of the cattle sold at Smithfield did not, at an average, exceed 370 lbs., and that of the sheep did not exceed 28 lbs; whereas, at present, the average weight of the cattle is estimated at about 800lbs, and that of the sheep at 80 lbs. Hence, on the moderate computation, it may be affirmed that the consumption of butchers' meat in the metropolis, as compared with the population, is twice as great at this moment as in 1740 or 1750.

In most other parts of the country, the increase in the consumption of butchers' meat has been even greater. In thinly peopled agricultural districts very little is consumed, but in manufacturing and commercial towns it is quite the reverse; and their vast increase during the last half century more than justifies the inference, that there has been, at least, a corresponding increase in the consumption of butchers' meat.

In this respect too the change in Scotland has been quite as great as that with respect to bread. So late as 1765, the slaughter of bullocks for the supply of public markets was a thing wholly unknown even in Glasgow, though the city had then a population of nearly 30,000!* Previously to 1775, or perhaps later, it was customary in Edinburg, Glasgow, and the principal Scotch towns, for families to purchase in November, what would now be reckoned a small, miserable, half-fed cow or ox, the salted carcass of which was the only butchers' meat they tasted through the year. In the smaller towns and country districts, this practice prevailed till the present century, but it is now almost every where abandoned. The consumption of butchers' meat in Glasgow, as compared with the population, does not at present differ materialy from that of the metropolis. We do not, indeed, believe that the command of the people of any country over food and all sorts of conveniences, ever increased, in any equal period, half so rapidly, as that of the people of Scotland has done since 1770.

A portion of the increased supply of butchers' meat has been derived from Ireland, but being mostly thrown on a single market, that of Liverpool, this portion appears much larger than it really is. If we estimate the imports of butchers' meat into great Britain from Ireland, at a tenth part of the increased quantity produced in this country since 1770, we shall not be within but decidedly beyond the mark.

It results from the previous statements,—1st, That the population of Great Britain has been considerably more than doubled—that the prodigious number of nine millions of individuals have been added to it in the interval between 1755, or 1760 and 1831. 2d, That the supplies of corn, and other raw produce obtained from Ireland, are quite insufficient to provide for the increased number of horses kept in the country at present, over and above those that were kept in 1760. 3d, That the population is now and has been for some years past, incomparably better fed, consuming a much greater quantity of wheaten bread and butchers' meat, in proportion to its amount, than in 1760, or at any other period of our history. And 4th, That the ports have been shut during the last four years: and that, consequently, the vast additions made to the population, and the signally improved mode of living, have both been provided for by the extension and improvement of British agriculture. There is not one of these propositions liable to either cavil or dispute—they are all bottomed upon unquestionable evidence. And having established them we shall now briefly inquire into the nature and influence of the more prominent of those agricultural improvements, the result of which is, in the aggregate, so astonishingly great.

[To be continued.]

SUCCESSION OF CROPS.

But however well adapted the soil and climate may be to the cultivation of any particular kind of vegetetable, the former soon ceases to be productive if constantly appropriated to the culture of plants of the same or analogous species. In order that land may be cultivated successfully, various kinds of vegetables must be raised upon it in succession, and the rotation must be conducted with intelligence, that none unsuited either to the soil or climate may be introduced. It is the art of varying the crops upon the same soil, of causing different vegetables to succeed one another, and of understanding the effect of such upon the

* Cleland's Statistical Account of Glasgow. 2d edit. p 192.

soil, that can alone establish that good order of succession which constitute cropping.

A good system of cropping is in my opinion, the best guarantee of success that the farmer can have; without this, all is vague, uncertain and hazardous. In order to establish this good system of cropping, a degree of knowledge is necessary, which unhappily is wanting to the greater part of our practical farmers. I shall here state certain facts and principles which may serve as guides in this important branch of agriculture.

Principle 1. All plants exhaust the soil.

Principle 2. All plants do not exhaust the soil equally.

Principle 3. Plants of different kinds do not exhaust the soil in the same manner.

Principle 4. All plants do not restore to the soil either the same quantity or the same quality of manure.

Principle 5. All plants do not foul the soil equally.

From the principles which I have just established, we may draw the following conclusions:

1st. That however well prepared a soil may be, it cannot nourish a long succession of crops without becoming exhausted.

2d. Each harvest impoverishes the soil to a certain extent, depending upon the degree of nourishment which it restores to the earth.

3d. The cultivation of spindle roots ought to succeed that of running and superficial roots.

4th. It is necessary to avoid returning too soon to the cultivation of the same or of analogous kinds of vegetables, in the same soil.

5th. It is very unwise to allow two kinds of plants, which admit of the ready growth of weeds among them to be raised in succession.

6th. Those plants that derive their principal support from the soil, should not be sown excepting when the soil is sufficiently provided with manure.

7th. When the soil exhibits symptoms of exhaustion from successive harvests, the cultivation of those plants that restore most to the soil, must be resorted to.

These principles are confirmed by experience; they form the basis of a system of agriculture rich in its products, but more rich in its economy by the dimunition of the usual quantity of labor and manure. All cultivators ought to be governed by them, but their application must be modified by the nature of soils, and climates, and the particular wants of each locality.—*Chaptal's Chemistry.*

WEIGHT OF GRAIN.

It may be interesting, and possibly of real utility to young farmers, to give the average weight of some of the most common kinds of grain and grass seed.

Wheat, mean weight,		60 lbs.
Rye,	do.	56
Barley,	do.	48
Oats,	do.	35
Indian Corn,	do.	58
Peas,	do.	63
Beans,	do.	62
Red Clover	do.	64

The weight often varies a few pounds to the bushel, according to the season and climate, soil and culture, and variety of seed. Wheat has weighed as high as 67½ pounds, and Indian Corn 64 pounds per bushel. Some barley has weighed as high as 54 pounds. On the other hand grain has often weighed less than the number of pounds above given, as unfavorable circumstances have operated. Wheat has fallen as low as forty-five.

TEA PLANT.—Mr. John Platt of Marietta Ohio, advertises in the Maretta Gazette, that he has succeeded in cultivating the genuine *Tea plant of China.* From the latter part of his advertisement it appears that he has not been influenced in his experiments by any selfish consideration but by a desire that the cultivation may prove beneficial to the country. The following are Mr. Platt's own remarks.—*Zanesville Gazette.*

TEA PLANT.

The subscriber has for ten years past cultivated, successfully, the genuine *tea plant of China*, and believes confidently that, after making various experiments involving considerable expense, he has at length discovered the art of drying and manufacturing the leaves, so as to produce the article of tea, in quality equal to the young hyson imported.

He has in his possession, samples which he will exhibit to any one desirous or curious to ascertain the fact. He will also give, gratis, to any gentleman desirous of cultivating it, or willing to make the experiment, fresh seed, of last year's crop, and will, moreover, give instruction for planting and rearing it. He is certain it may be raised and cured in this country, with good profit.

JOHN PLATT.

Marietta, Ohio, April 19, 1836.

N. B. It is not any selfish motive that has induced him to give this notice, but a sincere desire that it may prove a benefit to *this* country in which he has passed the *better part of eighty years* of his life. Inquire for me at *Mr. Christopher Carpenter's*, Green street.

President Dwight mentions that when he lived on Greenfield Hill, he often noticed that delicate plants which were protected by a fence from the north wind, were cut off by spring frosts, while those which were more exposed were uninjured. It was observed after the frost last week that some plants which were open to the north were saved, though the mercury was at 26 above zero.

His explanation was that the north wind drives the moisture from the plant and thus prevents it from being frozen upon it—so it would seem that in the case of what are called black as well as white frosts, it is not the juice of the plant which is frozen, but the external moisture.

Perhaps if observers compared notes on this subject something more might be known. It is desirable to get all information on a point so interesting to cultivators of gardens and orchards—for fruit is affected in a similar way.—*Springfield Rep.*

LUNAR INFLUENCE.—A writer in the New York Farmer has the following remarks on the subject of the influence of the moon upon the weather:

"In the course of my observation, I could not but refer at times to the remarks of the Indians, the ancient inhabitants of the country of my youth, of which there were a number of them living, and that was, that after the changes of the moon, if the corners pointed up in the form of a dish, it would be dry weather that moon, but if one down and the other up, it would be rainy or wet. Although astronomical knowledge taught me this was without foundation, still from repeated remarks, I was finally compelled to admit that there was some truth in the observation; and in process of time was led to form the following conclusions; that is, when the moon changes in a high north lattitude, it is generally cold and dry; but if in extreme south latitude, warm and wet, and apt to be stormy. It may be remarked, that when the moon changes in high north latitude, it makes the figure of the corners pointing up, and in the extreme south the other figure, which verifies the truth of the old Indian's remark. Hence although admitting that the sun and moon are the principal agents in governing the weather, there seems to be other causes which at times vary uncertainty; but I have very rarely known it fail that the moon in extreme south latitude, denotes warm and stormy weather, and in high north latitude, cold and dry; and they are apt to be of short duration. As my limits will not allow me to go farther into detail, it may suffice to remark, that if our almanack makers would give us the latitude of the moon at the full, change, and quarters, with the course she is going, whether north or south, we might foretel for ourselves, or they might give it by their own judgment from the moon's latitude in probability.

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THE SILK MANUAL.

JUST published and for sale by *Sinclair & Moore* and *Robt. Sinclair, Jr.*, at the *Maryland Agricultural Repository, Light* near *Pratt street, Baltimore*, a complete *Manual of the Silk Culture*, in which plain instructions are laid down for the *culture of the Mulberry, the feeding of the Silk worms*, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of $500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
Beans, white field,	bushel.	1 75	— —
Cattle, on the hoof,	100lbs.	7 00	8 50
Corn, yellow,	bushel.	79	80
White,	"	77	78
Cotton, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18½	20
Feathers,	pound.	50	52
Flaxseed,	bushel.	—	1 50
Flour & Meal—Best wh. wh't fam	barrel.	8 00	8 50
Do. do. baker's	"	7 50	8 00
Do. do. Superfine,	"	7 00	7 25
Super How. st. in good de'd	"	6 87	7 00
" " " wagon price,	"	6 75	6 87
City Mills, extra,	"	—	7 25
Do.	"	—	6 87
Susquehanna,	"	6 87	—
Rye,	"	4 75	4 87
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
Grass Seeds, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 50	3 00
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
Hay, in bulk,	ton.	—	20 00
Hemp, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	—	8 00
Slaughtered,	"	—	—
Hops—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
Lime,	bushel.	35	37
Mustard Seed, Domestic,	"	—	—
Oats,	"	40	45
Peas, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
Plaster Paris, in the stone,	ton.	4 00	4 25
Ground,	barrel.	1 50	—
Palma Christa Bean,	bushel.	—	—
Rags,	pound.	3	4
Rye,	bushel.	78	80
Susquehannah,	"	—	85
Tobacco, crop, common,	100 lbs	4 75	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 25	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	— —
Kentucky,	"	8 00	14 00
Wheat, white,	bushel.	—	1 60
Red,	"	1 50	1 55
Whiskey, 1st pf. in bbls	gallon.	34	35
" in hhds	"	33	33½
" wagon price,	"	31	— —
Wagon Freights, to Pittsburgh,	100 lbs	1 25	— —
To Wheeling,	"	1 50	—
		washed.	unwash
Wool, Prime & Saxon Fleeces,	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	22 24

GAME CHICKENS.

FOR SALE, five dollars a pair, Game Fowls, warranted to be of genuine strain. Apply to the editor

POTATO OATS.

100 Bushels *seed potato oats*—a choice article—for sale by JAMES MOORE,
Light, near Pratt st.
My 22 at the Maryland Agricultural Repository Market-ho.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
Apples,	barrel.	—	—
Bacon, hams, new, Balt. cured	pound.	15	17
Shoulders, do	"	12	—
Middlings, do	"	13	14
Assorted, country,	"	11	13½
Butter, printed, in lbs. & half lbs.	"	25	31
Roll,	"	20	20
Cider,	barrel.	—	—
Calves, three to six weeks old	each.	4 50	6 00
Cows, new milch,	"	25 00	50 00
Dry,	"	9 00	12 00
Corn Meal, for family use,	100lbs.	1 75	1 81
Chop Rye,	"	1 75	1 81
Eggs,	dozen.	—	12
Fish, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 37	—
Mackerel, No. 2, ——No. 3	"	—	—
Cod, salted,	cwt.	3 00	3 25
Lard,	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
MARYLAND.	
Banks in Baltimore,	par
Hagerstown,	¼a
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd,	do
Do. payable at Easton,	do
Salisbury, 5 per ct. dis.	
Cumberland,	¼a
Millington,	do
DISTRICT.	
Washington, Georgetown, Alexandria, Banks,	½.
PENNSYLVANIA.	
Philadelphia,	¼a
Chambersburg,	¾a
Gettysburg	do
Pittsburg,	2a2½
York,	¼a
Other Pennsylvania Bks.	1½a2
Delaware [under par 5]	3a4
Do [over 5]	¼a½
Michigan Banks,	5a
Canadian do.	5a

VIRGINIA.	
Farmers Bank of Virginia	¼a½
Bank of Virginia,	do
Branch at Fredericksburg	do
Petersburg,	do
Norfolk,	do
Winchester,	do
Lynchburg,	do
Danville,	do
Bank of the Valley,	do
Branch at Romney,	1
Do. Charlestown,	do
Do. Leesburg,	do
Wheeling Banks,	3½a4
Ohio Banks, generally	3a4
New Jersey Banks gen.	1½a2
New York City,	¼a
New York State,	2½a3
Massachusetts,	2a2¼
Connecticut,	2a2¼
New Hampshire,	2a2¼
Maine,	2a2½
Rhode Island,	2a2½
North Carolina,	3a3¼
South Carolina,	3a3½
Georgia,	3½a4
New Orleans	6

AGRICULTURAL AGENCY in *Philadelphia*,

(No. 5, South Fifth-street.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

One boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinks are supposed to be in pig.

Price twelve and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.—The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Durham Short Horn breed, with indisputable and excellent pedigrees, are for sale at prices much below those recently obtained in this vicinity for animals in *no respect better*.

MERINO AND BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price $5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing *orders* ought to be post paid and directed to J. IRVIN HITCHCOCK,
june 1 eow3t Philadelphia.

FIELD & GARDEN SEEDS, &c.
WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and FARM FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the *Clairmont Seed Gardens*, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of *Cabbages, Lettuce, Peas, Beans, Cucumbers*, &c., none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are.

250 bushels *Garden Peas* of various sorts.

95 bushels *Dwarf* and *Pole Beans*.

2000 lbs. *Cabbage Seeds*. About 35 fine sorts, among which are the *Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest*, &c

150 *lbs Cucumber seed*, about 12 sorts, among which are *Keene's Long Green*, Long Green Turkey, &c.

1800 lbs. *Radish seeds*—principally of *Short top Scarlet, Yellow* and *Red Turnip*.

300 lbs. *Beet and Mangel wurzel seed*.

50 *lbs. Green Curled Borecole*, or Scotch Kale, purple curled—blue curled, &c.

35 lbs. *Cauliflower and Brocoli*.—best European sorts.

200 lbs. *Carrot seed*—for garden and field.

75 lbs. *Lettuce seed*—the curled Silecia, large white or Lazy, brown Dutch and Malta, are best sorts; the latter particularly fine for forcing.

270lbs. *Onion seed*—several French and American sorts.

Also—*Tart Rhubart seed, Tomato, Egg plant, Squash*, Black and Orange *Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive*. &c.

FIELD SEED.

60 *bush. English and Italian Rye grass seed*.

50 do. *Green Sward grass*, for yards, &c.

1,200*lbs. Scarlet Trefoil* or *clover, Trifolium Incarnatum*.

800 *lbs. Lucerne* or French clover.

50 bush. *English* and *Poland* oats.

250 *lbs. Skinless* or *Huskless oats*—new—great product.

150 bush. best English and American *Early Potatoes*.

100 *lbs. Gama Grass seed*—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. White and Yellow Field corn.

ROBERT SINCLAIR, Jr. Seedsman,
Light st. near Pratt.

GAMA GRASS ROOTS.

5000 Gama Grass Roots, just received. Price $2 per 100. This grass still retains it high character for soiling and great product. Also in store, a few pounds of GAMA GRASS SEED. Price $6 per pound or 50c. per ounce. And will be for sale in a few days, 1300 Double Dahlia FLOWER ROOTS, embracing all the finest and most rare sorts.—Price 50 a 75 cents, $1, 1 50 a $2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr.
ap 26 Light, near Pratt st wharf.

look two leaves ahead for page 65.

scription would prove much more prompt in its curative effects. The compound of molasses, hogs' lard and brimstone, can only act in their combined form as aperient and cooling; but if the cayenne should be added, a decided improvement so far as the swelling of the throat may be concerned, would be effected, it would then act as a stimulant upon the indurated glands of the throat, thus giving them resolution and enabling them to resume their wonted action, and take up the superabundant secretions, and thus restore a healthful condition to the affected parts.

Of the leaves of the Maclura aurantia, (*Osage Orange*) as a substitute for those of the mulberry, as food for silk worms.

By M. Matthew Bonafous, Director of the Royal Garden of Botany and Agriculture, at Turin.

Translated for the Farmers' Register from the *Anales de l'Agriculture Francaise*, of Oct., 1835.

["The following facts—which with more of assurance, promise the attainment of the long desired substitute for the leaves of the mulberry, when the leaves of the latter are destroyed by late frosts—are the more important in this country, because the *maclura aurantia* is a native of North America, and grows naturally in regions where the climate is more rigorous than in the middle Atlantic states. The late frosts that unexpectedly destroy the young leaves of the mulberry, and would leave the silk grower without means of keeping alive his newly hatched worms, are of rare occurrence: but whenever they do occur, without sufficient precautions, the worms must perish—and the whole business of that year will be at an end. Hence the great value of any plant that can furnish a cheap and sufficient substitute for the mulberry, during the short duration of such seasons of scarcity.

There can be no higher European authority on this whole subject than M. Bonafous; but still it would be desirable to have his experiments repeated in this country. We would especially request this of a gentleman in Goochland, who has the Osage orange growing, and to whom we were indebted for the account of it, published at p. 543 of this volume—and to whom we regret to say, this Journal has been indebted for no other original matter, although we have frequently, and with pleasure, copied his communications to other and distant papers. Of such preference, however, we have no right to complain.]

The production of silk has become so fertile a source of riches, that the frosts of spring cannot cause injury to the young leaves of the mulberry, without affecting seriously the interests of agriculture, and of industry in general.

To preserve this tree from the frosts, which so often occur unexpectedly even at the moment when the silk worms are about to come out of the eggs, has induced cultivators to adopt various measures—as planting in the best exposures; heaping earth about the lower part of the trunk in autumn, covering with straw, and throwing manure over the roots, &c. But these precautions are commonly useless, if the frost occurs after the sap of the mulberry is rising.

Researches have also been made to find some plant that could supply the place of mulberry, when late frosts suspend its vegetation. The wild bramble, the rose, the elm, *l'epine vinette*, the maple of Tartary, the Spanish scorzonera, and lastly, the *cameline*, have been proposed as substitutes; and if experience proves that some of these plants may feed the silk worm, it also proves that they cannot make it produce the glutinous [*resineuse*] matter, considered necessary to the formation of the cocoon.

I was thence induced to believe that it would be difficult to discover a substance both suitable to take the place of the mulberry, and able to resist frosts. However, being at Montpelier, in April, 1834, when the cold of four degrees, (of Reaumer) below zero, injured a great number of mulberry trees, I was curious to study the effects of the cold upon a multitude of plants cultivated in the *Jardin de l'Ecole de Medicine*; and having observed that a tree of the family of the *utricees* (which botanists do not distinguish from the mulberry, except by its flower having a single style,) had resisted this lowering of temperature, while the white mulberry, the black, that of the Philippines [or Chinese] and the mulberry of Constantinople, had not been able to support it, I thought it useful to ascertain whether this tree, recently introduced into Europe under the name of the *Maclura Aurantia*, could be successfully employed for the nourishment of silk worms.

For this purpose I had hatched the eggs of a Syrian variety of silk worms, which I had received, and scarcely had the worms left the eggs, when I formed of them two divisions, which I fed in the same locality, the one with the leaves of the Maclura, and the other with those of the white mulberry. The worms fed with the *maclura* had a more rapid growth during the two first ages: but afterwards, the worms fed with mulberry leaves, in their turn, took the superiority over the others, and maintained the superiority up to the time of their *climbing*. The worms fed with the *maclura*, acquired a greenish tint, which made them easily distinguishable from the others; and although at a later time by seven or eight days, they formed cocoons of a regular structure, and of as firm a texture, as those of the worms fed by mulberry leaves: such were the cocoons of M. Farel, correspondent of the *Societe Royale et Central d' Agriculture*, sent me from Montpelier, as soon as he had completed (under the eyes of the agricultural society of Herault,) the comparative rearing of the two kinds, which my leaving the department had not permitted me to conduct myself, to its termination.

It follows then, from this fact, that the *maclura aurantia*, without offering all the qualities which render the mulberry so well suited for feeding silk worms, presents still a most important advantage, that of not being injured by a degree of cold which the mulberry cannot endure, and of being able to supply its place, until the mulberry shall have put out a second growth of leaves. It is true that I cannot mark the limit at which the maclura ceases to vegetate in Europe, however, I can affirm that it has never yet been injured by freezing in the Botanic Gardens of Paris, of Strasburg, of Geneva, &c., nor in that [of Turin] which is under my direction, where I introduced this tree five or six years ago.

In calling the attention of agriculturists to this first experiment, I would wish to induce those who are engaged in silk culture, to plant some stocks of *maclura*, to supply nourishment to their worms, when the leaves of the mulberry are nipped by frost. A *maclura* of 12 to 15 feet in height, such as that of Montpelier, which served for my experiment, will suffice for feeding, during the two first ages, as many worms as will be produced from two to three ounces of eggs.

Originally from North America, where it grows on the banks of the Missouri, and in the country of Natchez, the *maclura aurantia* rises to 50 feet high, with a diameter of 6 to 8 inches. Its trunk is milk-yielding, and covered with bark that is readily divided into threads, and the branches are flexible, and armed with thorns, which disappear at an adult age, as I have observed on the tree at Montpelier. The roots yield a lively yellow tint. The leaves are alternate, on foot-stalks entire, 5 to 6 inches long, and 2 to 3 wide, oval and acuminate, glossy on the upper surface, and slightly hairy on the lower, of an acrid taste, and becoming dry less quickly than those of the mulberry. The male of flowers forming a lengthened spike, [*chaton*] presents a calyx of four divisions, without carolla, and four stamens. The female flowers, borne upon another stem, have a smaller calyx, without carolla, a thread-like style, hairy, and numerous ovaries united in a spherical spike. The fruit is a pulp with many cells, of the size and color of an orange, good to eat, as some say, but not eatable according to Michaux, to whom we owe the introduction of this tree. Each cell encloses a compressed oval seed.

The *maclura aurantia*, on account of its points of relation to the mulberry of the Osages—the name of a tribe of savages who inhabit Louisiana, and who use its branches to make their bows. It thrives well on both fertile and inferior soils, and is reproduced easily by seeds, by layers, by grafts upon the paper mulberry, (*broussonetia papyrifera*,) and still better, by slips of its young branches or roots. In this last mode of multiplication, which I believe the most proper, the roots are cut, when they are nearly the size of the finger, into lengths of 7 or 8 inches; the pieces are planted in a cool and sheltered place, and not leaving but 2 or 3 lines of each above the ground. The plant succeeds equally well as a standard, in a hedge, in shrubbery, or as an espalier.

The utility of the *maclura aurantia*, considered as an auxiliary of the mulberry, its resistance of late frosts, the elegance of its form, the facility with which it can be multiplied, the vigor of its growth, and the pliability of its branches which permits their being applied to various use, —all these qualities assign to it a distinguished rank among the foreign trees, that are the most suitable to enrich our agriculture, and to embellish our country.

Incessant attention is as necessary to the success of a farmer as is well directed exertions, for the best of laborers require watching.